CONTACT: CONcussion Treatment after Combat Trauma

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Funded by the Department of Defense

US Army Medical Research and Materiel Command (USAMRMC)

Contract # W81XH-08-2-0159

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Individualized Scheduled Telephone Support

ISTS: a telephone intervention providing injury-related education, training in problem solving, and focused behavioral strategies for problems, e.g., headaches, anxiety, depression, that commonly co-occur with mild traumatic brain injury (MTBI)

Primary Aims

1) To compare the effects of ISTS and UC on post-concussion symptom severity

2) To compare the effects of ISTS and UC on symptoms of emotional distress

Secondary Aims

1) To evaluate the effect of ISTS on functioning, quality of life, pain, sleep, depression, posttraumatic stress, resilience, and work activity
2) To examine the differential impact of the intervention in demographic subgroups, with particular attention to minority versus non-minority and ethnic populations, and between active duty military and National Guard/Reserve populations

3) To examine the differential efficacy of ISTS in subgroups based on time since injury and number of known TBIs

4) To examine the effects (maintenance of benefits; emergence of new effects) on primary outcome measures at 12-month follow up

Background

- Increase in incidence of TBI for Service Members due to current war efforts
- About 23% of brigade combat teams show clinician-confirmed TBI during post-deployment screens (Fred Flynn, MD, personal communication to Kathy Bell, MD)

- Symptoms of MTBI include memory impairment, dizziness, fatigue, sleep disorders, headache, balance problems, blurred vision, and light and noise sensitivity
- In most cases of civilian injury, symptoms resolve in 3 months, but 5-48% of persons with MTBI complain of symptoms for >6 months

- Frequent co-occurrence of PTSD, other anxiety disorders and mood disorders in injuries, including MTBI injuries sustained in battle

Interventions for MTBI

- A few underpowered studies w/high loss to f/u indicated face-to-face education helped
- A few small studies suggest CBT and CBT+Neuropsychological Rehab is effective w/anxiety disorders
- No studies found examining treatment of Service Members with co-occurring MTBI and PTSD

- Early prevention measures, e.g, graded return to activities, education re healing, may reduce medical and social morbidity
- Some evidence that biopsychosocial factors play a role in persistence of symptoms
- When treatment is delayed, symptoms may become chronic

- Growing evidence that self-management programs, which emphasize collaborative relationships between provider and patient, and which model and teach problem identification and problem solving, result in better health outcomes compared to traditional health education models

- UW study of telephone intervention with civilians coming to ED with MTBI
  - 366 participants
  - Randomly assigned to scheduled telephone intervention vs usual care
  - decreased symptoms and functional improvement in telephone intervention group
  - No difference in prevalence of PTSD

Why the Telephone?

- Economical
- Can reach service members in diverse geographical areas where there may not be specialized TBI services or transportation to services may be a problem
- Convenient

CONTACT Study

- Recruit Service Members returning to Fort Lewis from theatre
- Positive response to screening at post-deployment examination
- Positive response to questions 1, 2 or 6 on the “2+10 TBI Screening Questionnaire (corresponds to CDC definition of MTBI)
- Has access to a telephone

- Exclusion criteria
  - Moderate or severe TBI
  - Active psychotic disorder
  - Current severe alcohol/drug abuse
  - Enrollment into intensive treatment at MAMC TBI program

Procedure

- Participants screened and consented
- Baseline assessment
- Random assignment to ISTS or UC
- Intervention or UC
- 6 month follow up
- 12 month follow up

Usual Care

- Any medical or other follow-up prescribed in post-deployment clinics
- Ask them to register for afterdeployment.org
- 12 educational brochures on MTBI symptoms and distress, one mailed every 2 weeks

ISTS

- Usual care
- 12 scheduled telephone follow-up calls over 6 months
- 30-45 minutes/call
- Scripted outline
- Will invite participation of SO

Intervention

- Self-management therapy
  - Problem Solving
  - Behavioral Activation
  - Motivational Intervention
  - Education
  - Care management
- Urgent Care
- Emergent Care

- Symptom focused: this is not psychotherapy
- Specialized modules, e.g., headache, dizziness, anxiety, depression

Call Elements

- Review plan developed in previous call to follow up
- Identify, clarify and prioritize current concerns (including screen for emotional distress)
- Discuss alternatives, develop plan to address concerns

Measures

- Primary
  - Rivermead Post-Concussion Symptom Questionnaire
  - Brief Symptom Inventory-18

- Other measures
  - Perceived Quality of Life Scale
  - Pittsburgh Sleep Quality Index (plus its PTSD Addendum, if indicated)
  - PTSD Checklist-Military Version
  - Patient Health Questionnaire-9
  - AUDIT-C
  - Brief Pain Scale

- Connor Davidson Resilience Scale – 10 item version
- Work activity questions
- Client Satisfaction Questionnaire
- WebEd Usage questions
- Life Events Checklist
- Short Form -12
- Sheehan Disability Inventory

Hypotheses for Primary Objectives

- ISTS will be associated with lower levels of post-concussive symptoms (compared to UC) at 6-month follow up (Outcome: Rivermead Post Concussion Symptoms Questionnaire – Total Score).
- ISTS will be associated with lower levels of emotional distress (compared to UC) at 6-month follow up (Outcome: Brief Symptom Inventory – Global Severity Index).